

The Natco Suburban House and Garage

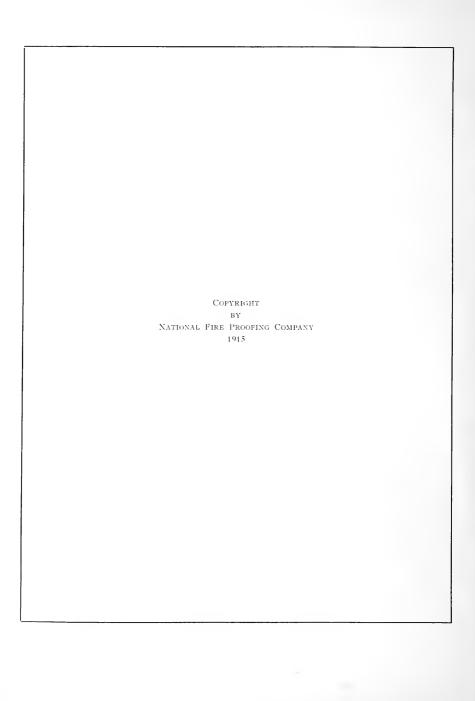
ATTRACTIVE ECONOMICAL D U R A B L E FIREPROOF

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FOREWORD

THE development of extensive suburban tracts on the outskirts of our larger cities during the last few years has been remarkable. The greatest single factor making for this movement is the popularization of the automobile. Where real estate developments were formerly limited to sections having good lines of transportation, this restriction has been removed, for the automobile, reduced in initial cost and upkeep, is now within the means of a great number of people. No longer is the average man limited to having merely a summer home out of the city, but now he may live away from the noise and dirt during the whole year, eliminating distance by the use of the automobile.

This gratifying change in the living habits and conditions of a great many people has created a new architectural problem:—the designing of a suburban house with an adjoining garage. While the man living in the city has many public garages at his disposal, the suburban dweller must provide some place of his own where he may keep his car. To the man building a home of moderate cost this close proximity of his garage is of advantage in that it places his car at his immediate disposal.

In building in the suburbs, the very first requirement to be laid down is that the structures shall be fireproof or as nearly so as conditions will allow. The question of safety from fire becomes a very real issue when it is realized how often the suburban district is without adequate fire apparatus. Fire prevention must then take the place of fire-fighting. The hazard in the case of the garage is increased by the very nature of its purpose so that prevention is even more necessary.

This demand for fireproofing is satisfied when the construction is of Natco XXX Hollow Tile. The garage with tile walls and the usual concrete floor will be absolutely fireproof; while the house with tile walls and wooden floor construction will be semi-fireproof. The house may be made entirely fireproof by using Natco Tile for the floor construction as well as for the walls and partitions. Regular tile shapes can be used for this purpose. By placing them four or five inches apart, forms are made for the pouring of concrete beams. This makes a most rigid and substantial floor, not only completing the fireproofing of the building but strengthening the whole construction at the same time. This is fireproofing at the lowest cost, for any cheaper construction must be of wood and obviously can make no pretense at being fireproof.

After fireproofing the next consideration of vital importance to any home

builder -and especially to the builder of the home of moderate cost--is the question of the upkeep of the house. The wooden dwelling by the very nature of its material will necessitate repairs which increase surprisingly with each year, and at the same time the deterioration of the structure will impair its marketable value to a very appreciable extent. The largest share of this upkeep cost is eliminated by the use of Natco XXX Hollow Tile, and at an initial cost so slightly higher than the perishable and inflammable wooden construction that a few years will show a balance clearly in favor of the tile house.

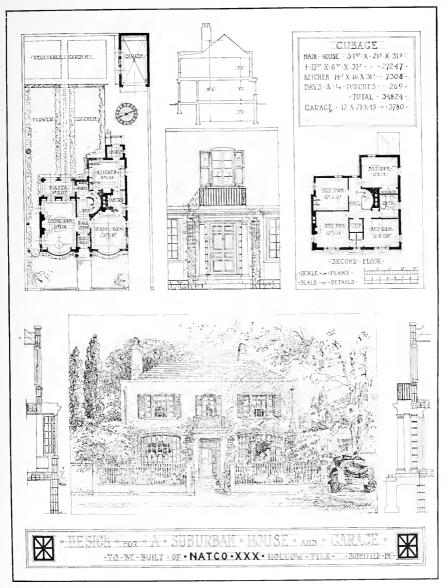
Besides these considerations of fireproofing and upkeep Natco Tile construction has an added advantage of comfort. The air spaces which are afforded by the hollow cells of the tiles have an insulating value of great importance; they make the phrase, "warm in winter; cool in summer" a realized

actuality which should be gratefully appreciated.

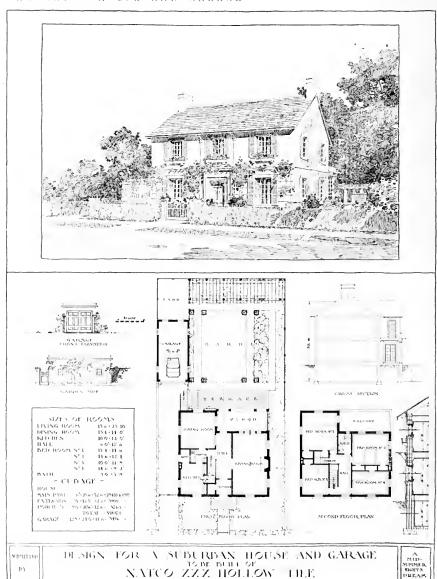
With such advantages of Nateo Tile construction added to the possibility of making the exterior as attractive as when any other material is used, the only factor to be questioned is the slight additional cost involved in constructing the building. While the cost of tile is a little more than for the more perishable materials there are two points of distinct saving where tile is used. One of these is due to the fact that the interior plastering may be applied directly to the surface of the tile, thus avoiding the expense of the usual lathing, and the other is in saving in the labor of construction, which is reduced in the tile house because of the large size of the tile and the resulting rapidity with which a wall may be built. The largest saving, however, is to be found in the expense of upkeep, which is necessary in the cheaper house and unnecessary in the house of Nateo XXX Hollow Tile. This saving alone is so large that it practically eliminates the question of the initial expense in construction where tile is used.

In the following pages are reproduced drawings which were submitted in a competition for the design of a Suburban House and Garage to be located on a fifty-foot lot in the outskirts of a large city or at some suburban development. They are the work of architects from all parts of the country and readily show how various are the possibilities of producing an attractive design in this material. These schemes are not mere dreams of idealists, but are real practical solutions of the problem by architects who are daily producing work. For this reason they should be of actual value to the prospective home builder in indicating to him the possibilities in the use of Natco XXX Hollow Tile.

The designers were limited in the size they could make their buildings by the restriction that the volume of the house should not exceed 35,000 cubic feet and that of the garage 4,000, making a total of 39,000 cubic feet. While the cost of construction will vary with the location of the building and with the conditions governing the cost of labor and material, the average cost of this type of dwelling is not over twenty cents per cubic foot, which would make the cost of the designs here shown a very little if any over \$7,500.



FIRST PRIZE DESIGN Submitted by William G. Rantoul, 6 Beacon Street, Bostou, Mass.

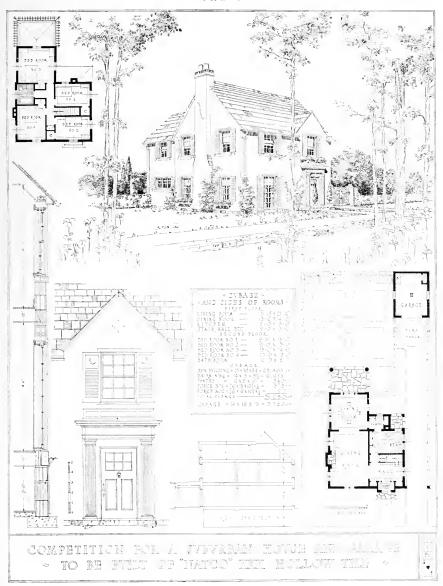


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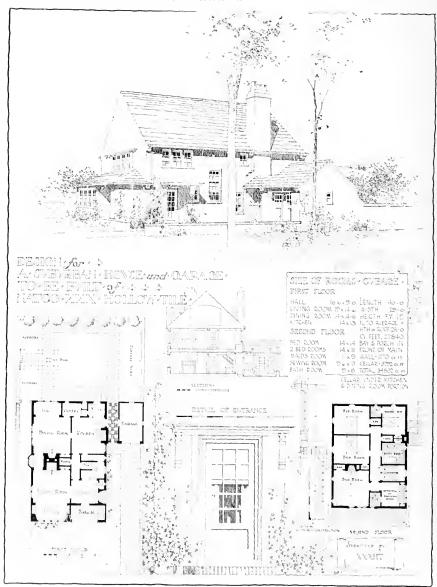
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617 We salt and Seed, New York, N. Y.

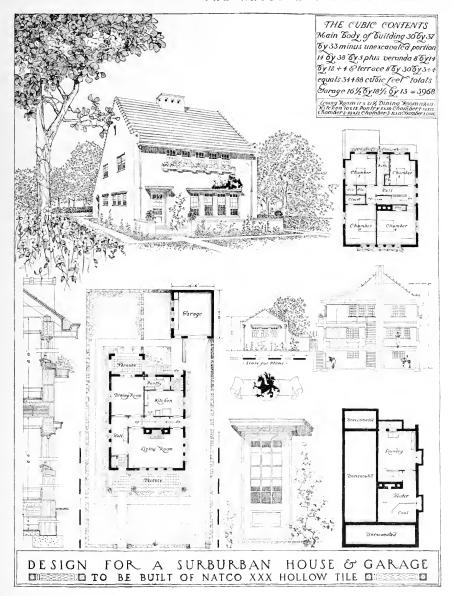
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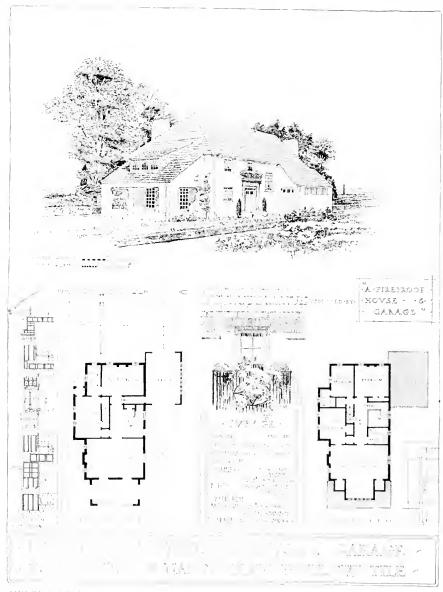
THIRD PRIZE DESIGN Submitted by J. Ivan Dise, 418 West 118th Street, New York, N. Y.



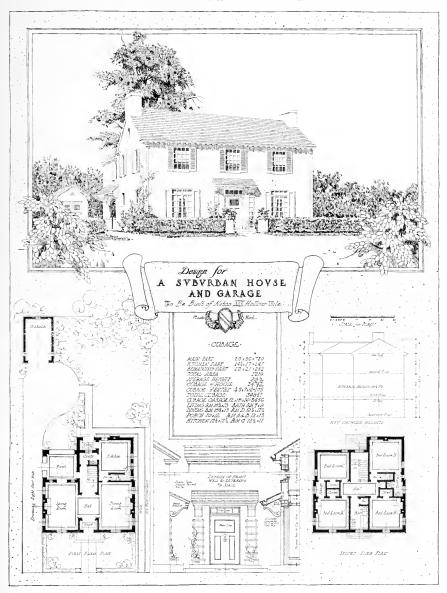
FOURTH PRIZE DESIGN Submitted by Richard M. Power, 12 O'Corl Averne, Belmont, Ma.



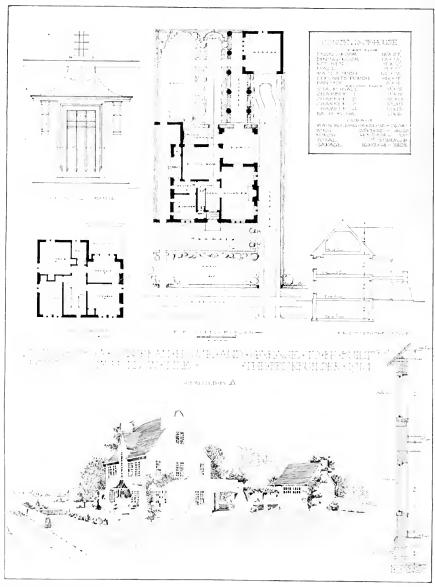
MENTION DESIGN Submitted by Warner A. Ebbets, 6049A Catharine Street, Philadelphia, Pa.



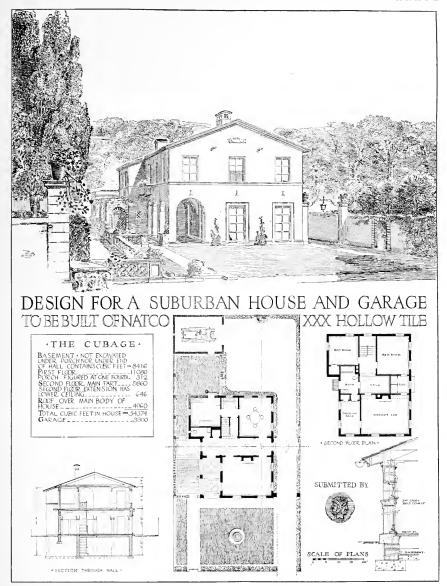
MENTION DESIGN Submitted by W. P. Hutchine and J. P. Morgan, 812 Magee Building, Pitt burgh, Pa.



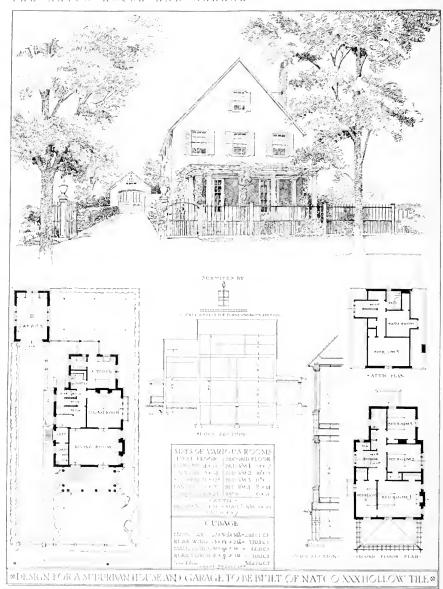
MENTION DESIGN Submitted by Lawrence L. Wolfe, 213 Sixth Avenue, Pittsburgh, Pa.



MINTION DESIGN Submitted by Robert A. Taylor, 925 Che funt Street, Philadelphia, Pa.



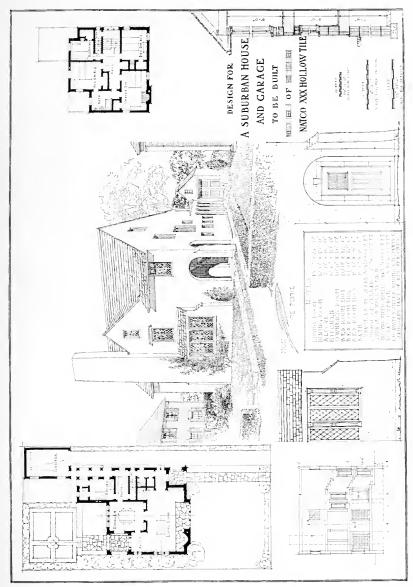
MENTION DESIGN Submitted by T. H. Ellett, Madison Square Garden Tower, New York, N. Y.



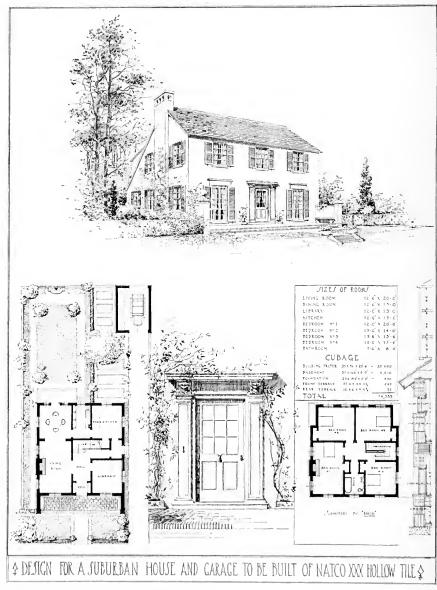
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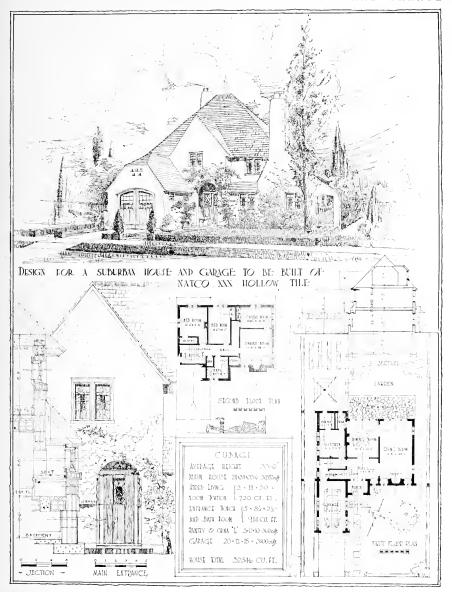
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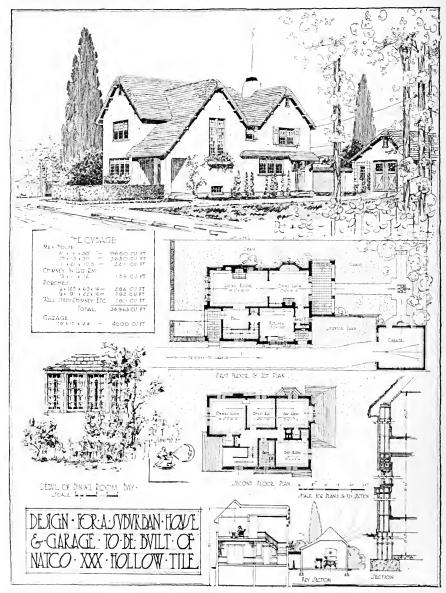
substituted by Antonio di Nardo and William Gehron,

101 Par Avenue, New York, N. Y.



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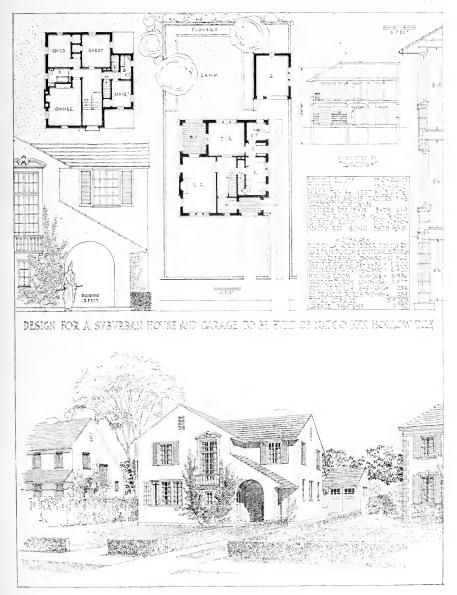
Submitted by Ernest Hayward and Sigmund Nesselroth, 6 Beacon Street, Boston, Mass.



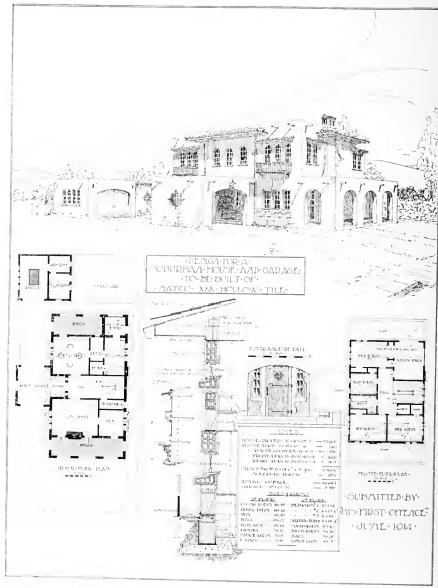
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^{11 . . .} Thy William J. Mooney and Gordon II. Robb,

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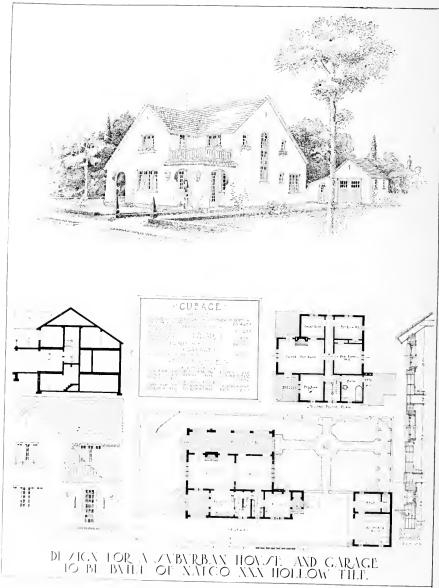
Design Submitted by Olaf William Shelgren, 1314 Prudential Building, Buffalo, N. Y.



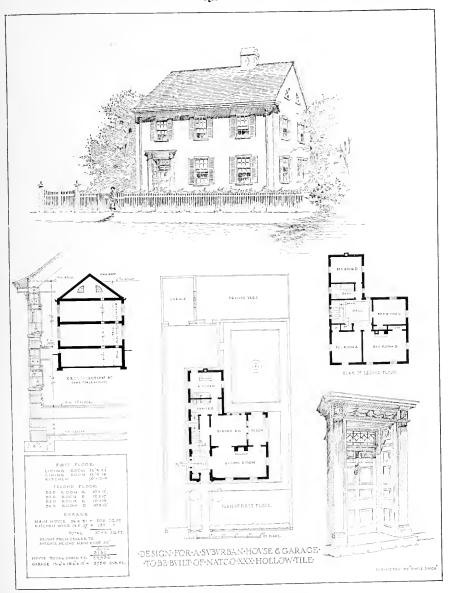
Design Submitted by P. H. Dodge, 185 Fifteenth Street, Oakland, Cal.

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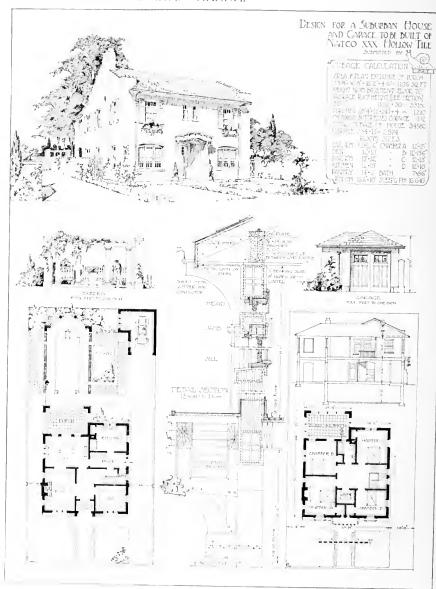
Design Submitted by Harold Van Der Voort Walsh, 602 South Broadway, Yonkers, N. Y.



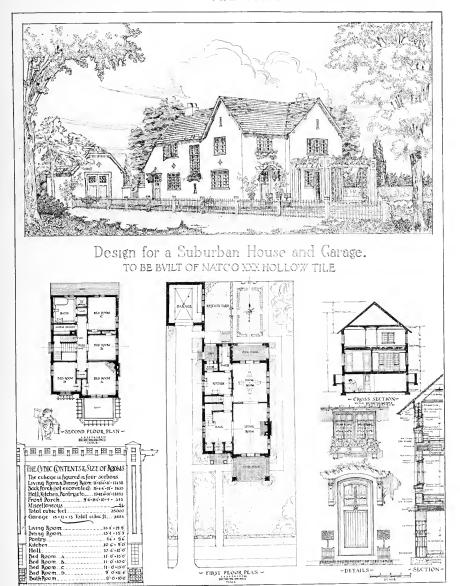
Design Submitted by Adrian C. Finlayson, 2 Boulevarde Louise, Santuree, San Juan, P. R.



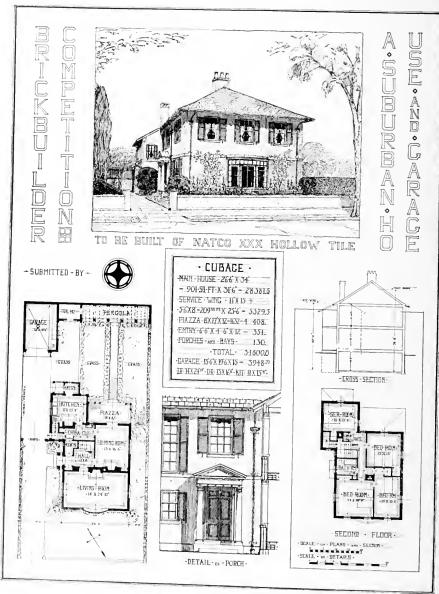
Design Submitted by Edward Arnemann, 554 Gregory Avenue, Weehawken, N. J.



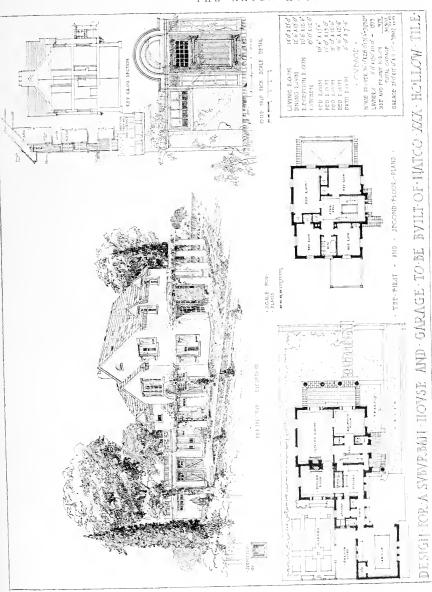
Design Submitted by Francis Palmer Smith, Georgia School of Technology, Atlanta, Ga.



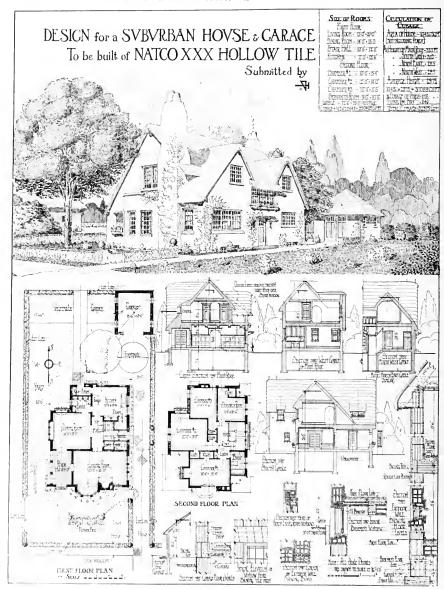
Design Submitted by Clarence M. Bogia, 5833 Washington Avenue, Philadelphia, Pa.



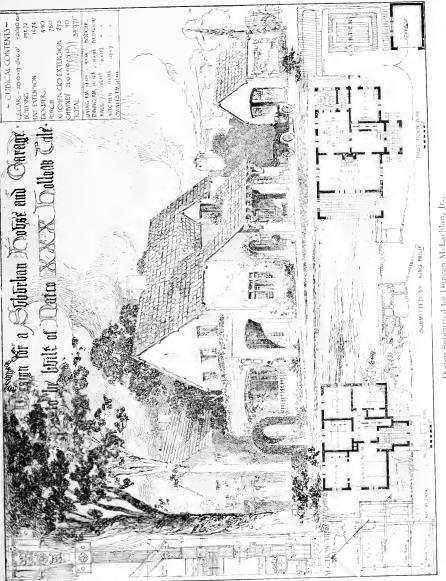
Design Submitted by Charles H. Way, 6 Beacon Street, Boston, Mass.



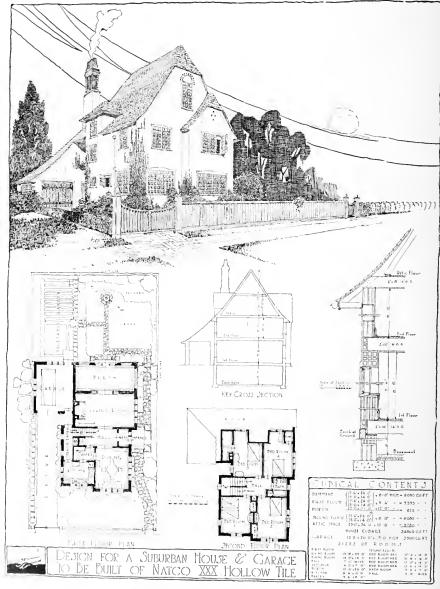
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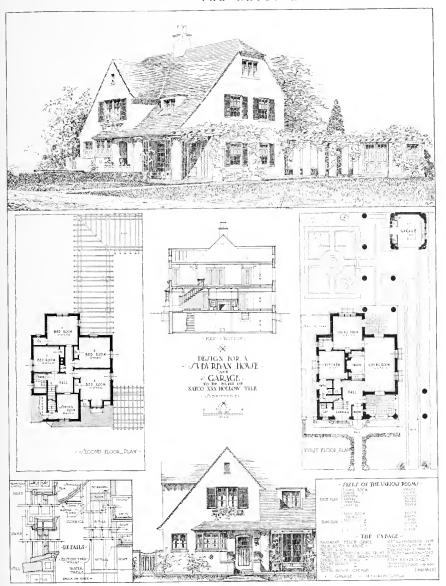
Design Submitted by George Marko, 92 Knapp Street, Milwaukee, Wis.



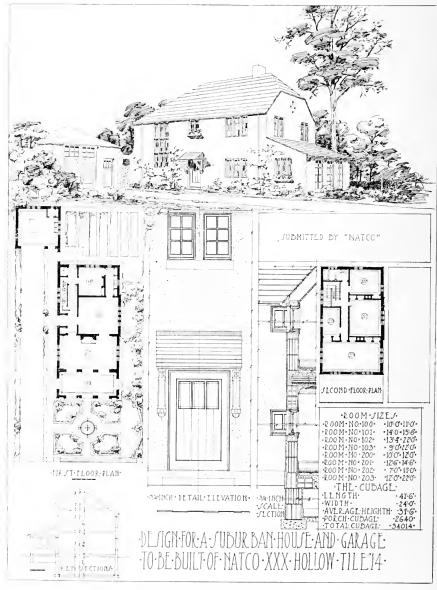
Design Submitted by Duncan McLachlan, Jr., 624 47th Street, Brooklyn, N. Y.



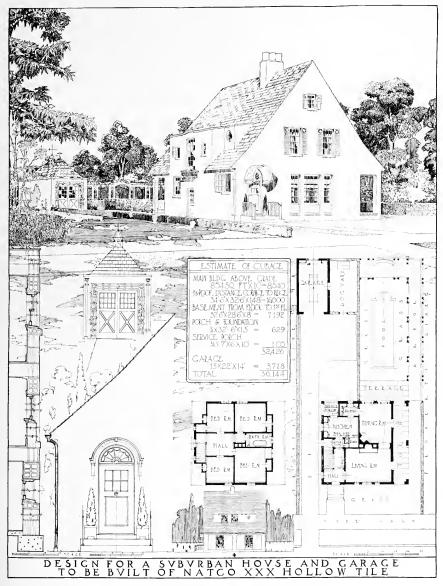
Design Submitted by Herbert A. Sullwold, 207-208 Studio Building, St. Paul, Minn.



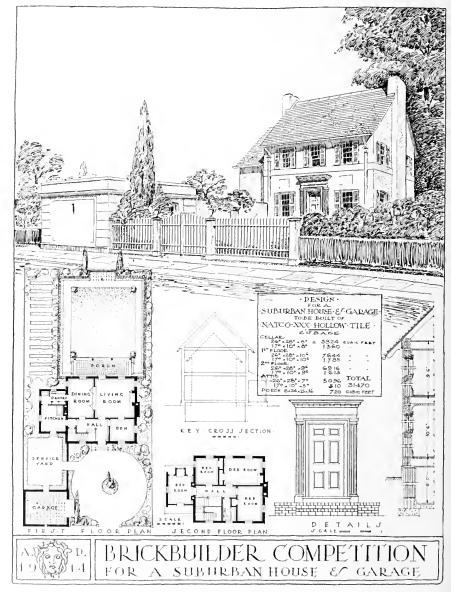
Design Submitted by Elbert J. Richmond, 129 Church Street, New Haven, Conn.



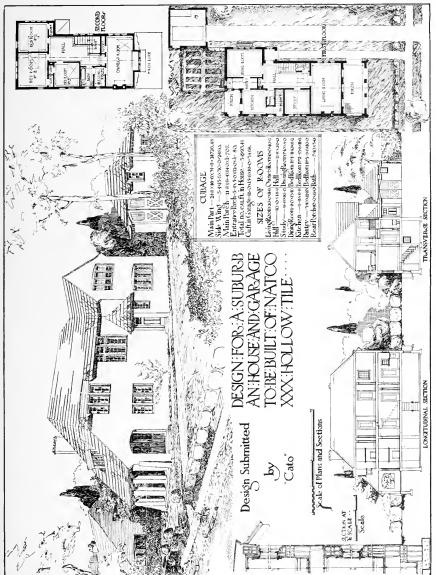
Design Submitted by W. F. Burkhart, 43 West 48th Street, New York, N. Y.



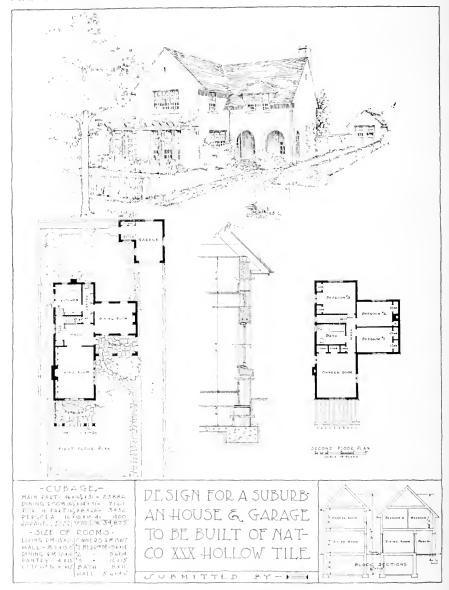
Design Submitted by C. A. Houghtaling and L. L. Dougan, 507-8 Henry Building, Portland, Ore.



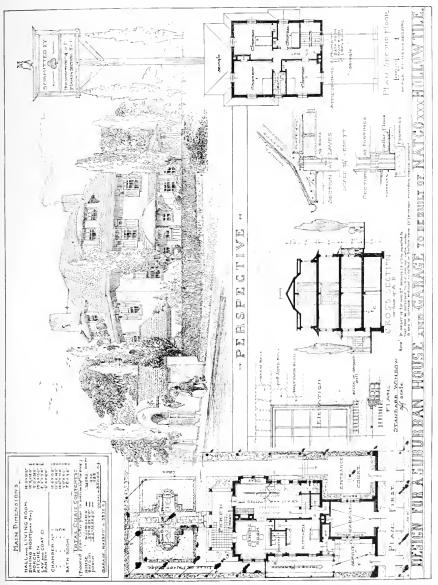
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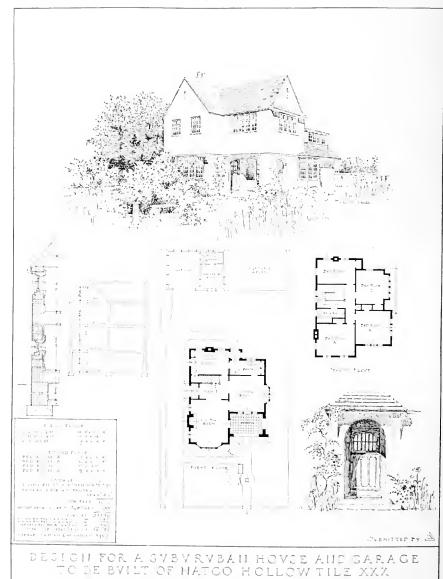
Design Submitted by Wells I. Bennett, Cato, N. Y.



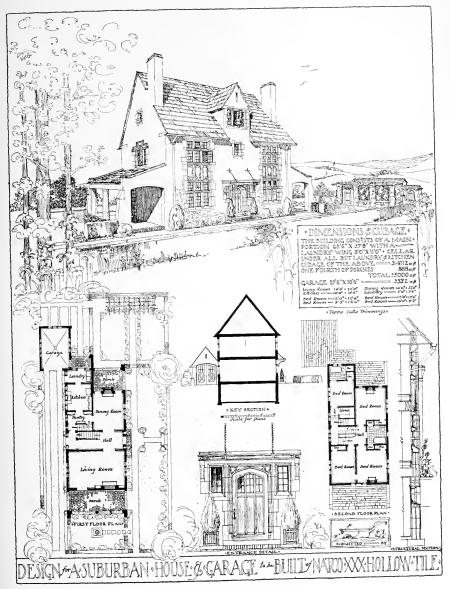
Design Submitted by P. W. Scott, 480 Clinton Avenue, Brooklyn, N. Y



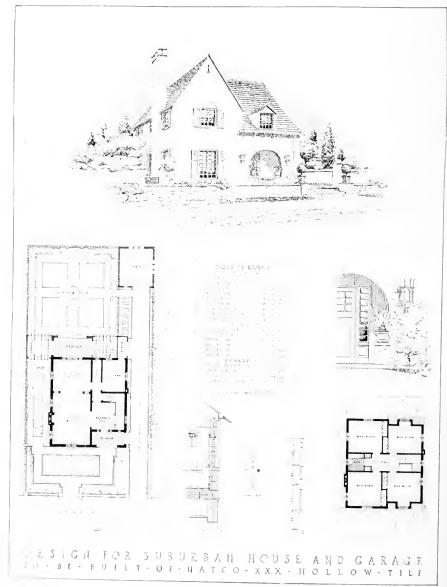
| Design_Submitted by Lindley Johnson, 1114 Harrison Building, Philadelphia, Pa.



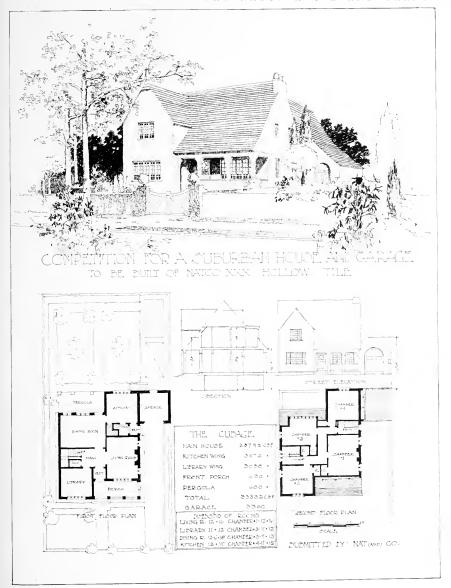
Design Submitted by Oscar J. Arnemann, 51 Hauxhurst Avenue, Hauxhurst Park, N. J.



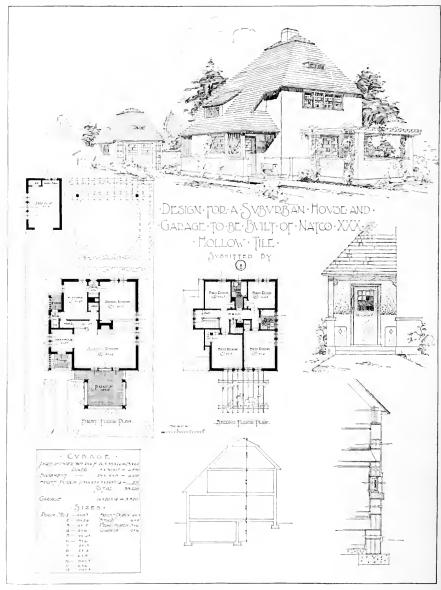
Design Submitted by A. C. Howard, Wallingford, Pa.



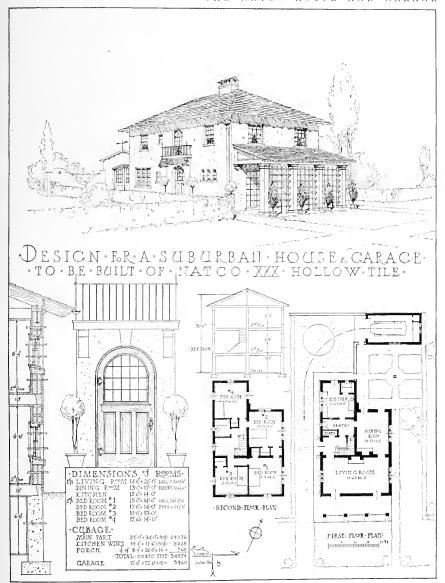
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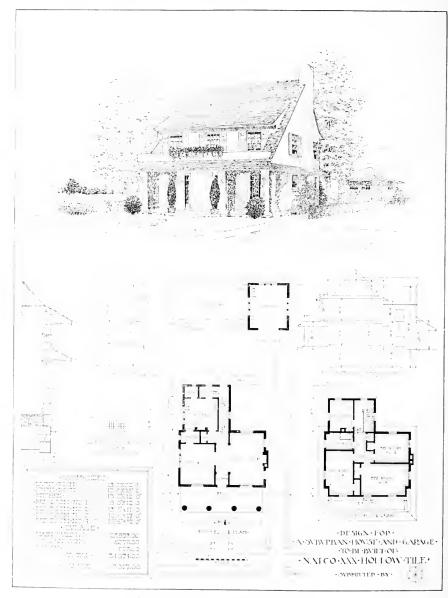
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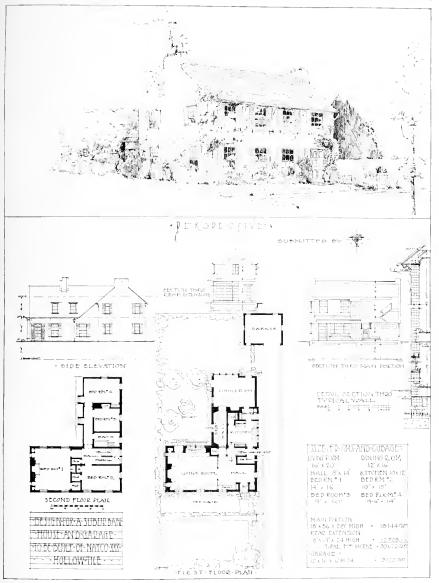
Design Submitted by James L. Gatling, 504 Southern Trust Building, Little Rock, Ark.



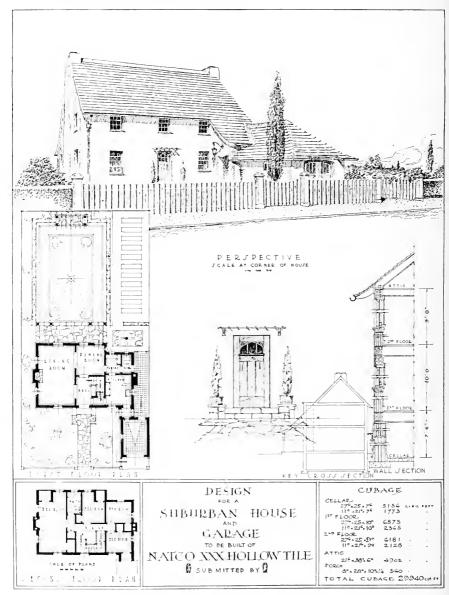
Design Submitted by Robert Pallesen, 345 Fifth Avenue, New York, N. Y.



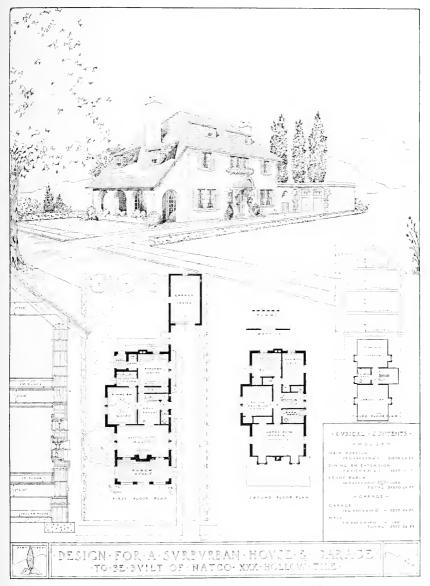
Design Submitted by William Douglas Smith, 358 Hamilton Place, Hackensack, N. J.



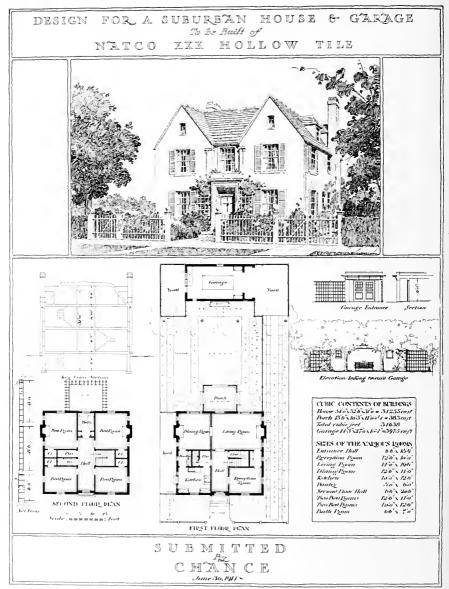
Design Submitted by W. S. Fessell, 376 De Wolf Place, Hackensack, N. J.



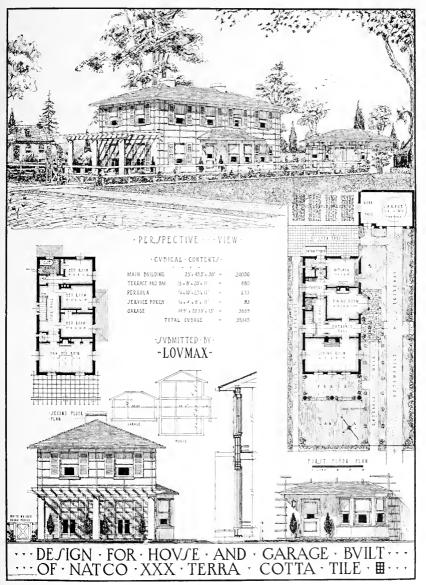
Design Sul mitted by C.J.M. Foster and H. M. Sohn, 128 Fast 37th Street, New York, N. Y.



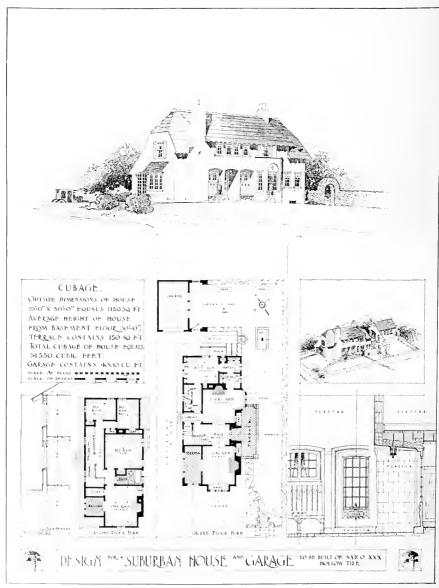
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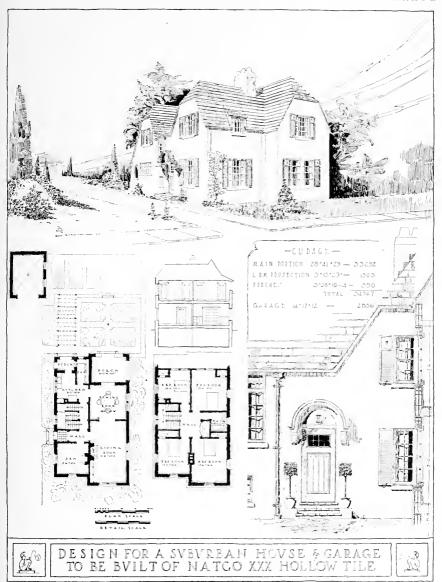
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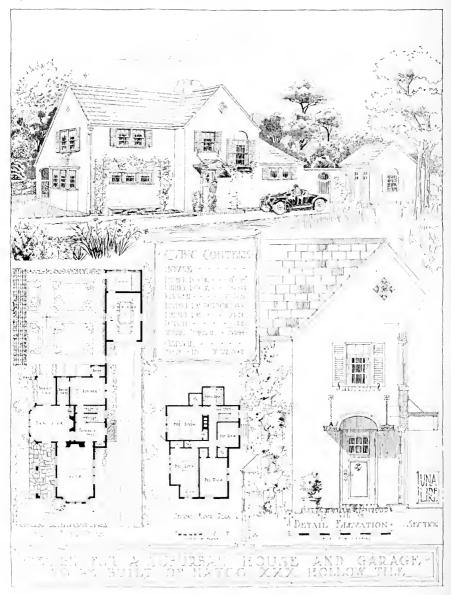
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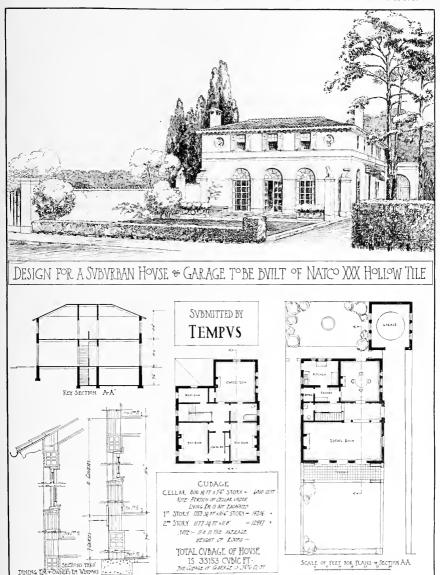
Design Submitted by Clarence B. Hall, 93 Federal Street, Boston, Mass.



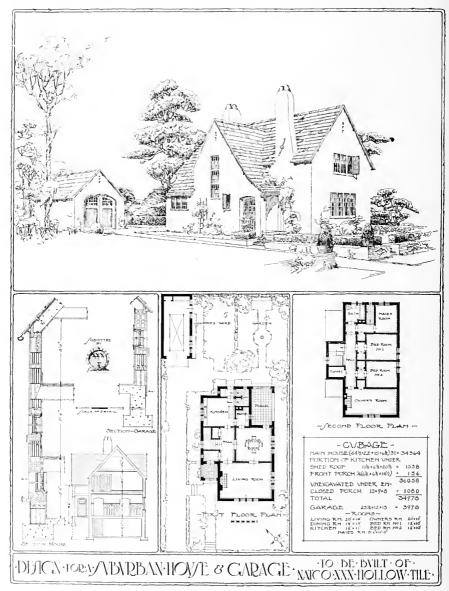
Design Submitted by Henry W. Fox, 510 Minot Building, Boston, Mass.



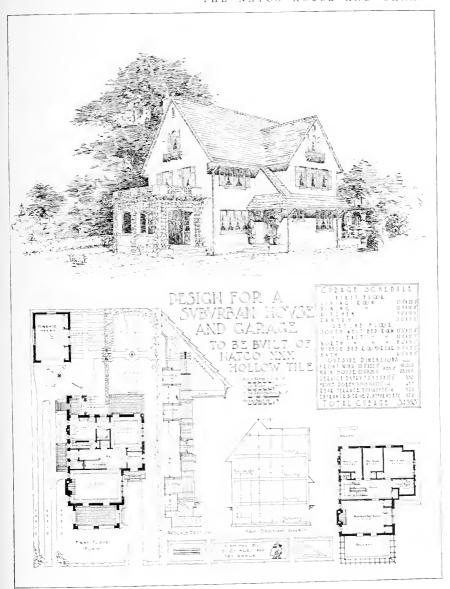
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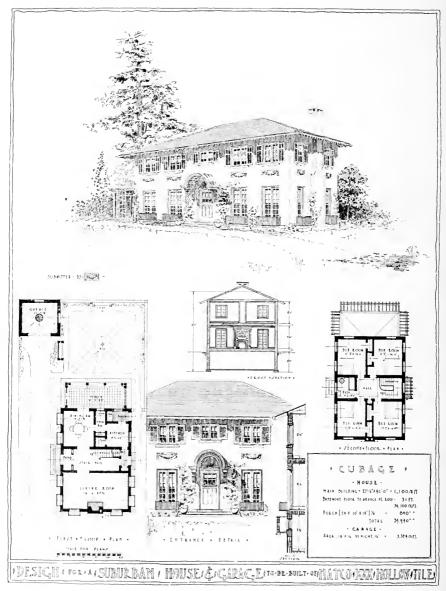
Design Submitted by L. P. Burnham, 51 Madison Avenue, New York, N. Y.



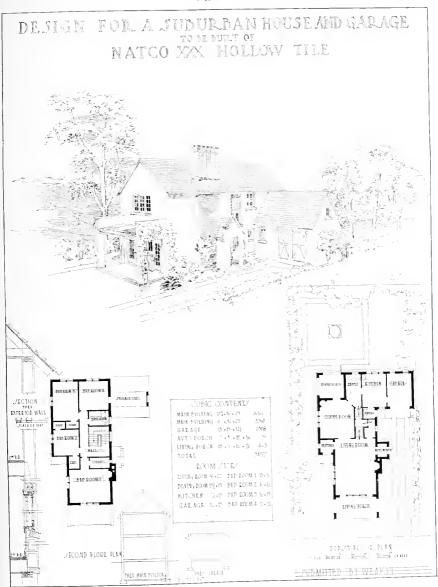
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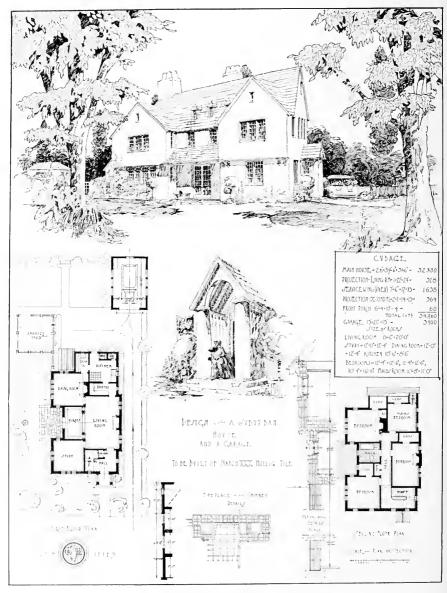
Design Submitted by Howard S. Patterson and J. Walter Ketterer, 200 Claremont Avenue, New York, N. Y.



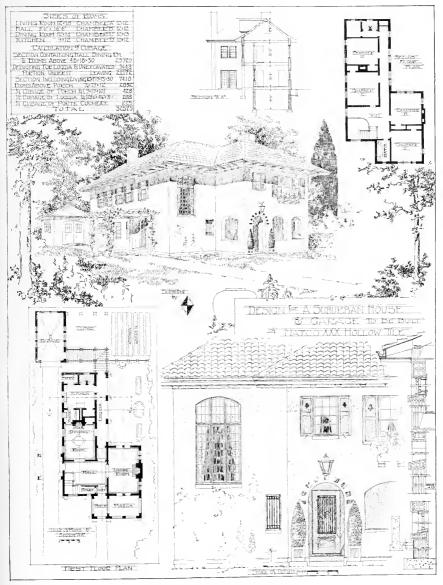
Design Submitted by Arthur E. Middlehurst, 1108 Pythian Building, Indianapolis, Ind.



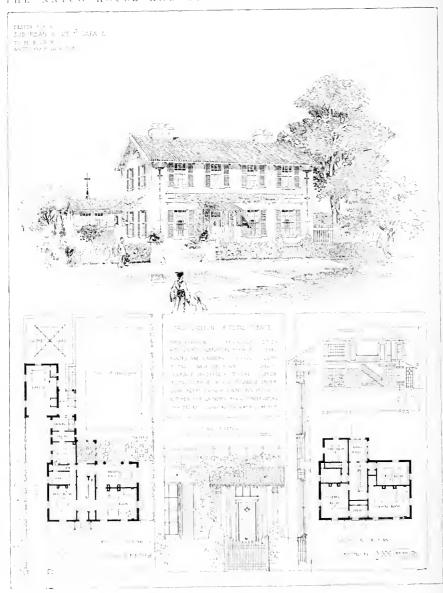
Design Submitted by C. A. Erikson, 111 South Scoville Avenue, Oak Park, Ill.



Design Submitted by P. Donald Horgan, 14 Kilby Street, Boston, Mass.



Design Submitted by W. Sanford Full, 46 Cornhill, Boston, Mass.



Design Submitted by Ralph Herman Hannaford, Hotel Westminster, Boston, Mass.

ON the following pages there are shown a number of attractive Suburban Houses with Garages that have been built of Natco Hollow Tile.

Description of Natco Hollow Tile Houses and Garages

(Illustrated on following pages)

HOUSE AND GARAGE AT MIDDLETOWN, N. J.,

Page 65

Ernest A. Arend, Architect

THE exterior walls of this house are of Natco Hollow Tile finished with stucco on the outside. The stucco is a cream white and the tile roof is red, making a very satisfying combination.

There are two stories with an air space beneath the roof. The first story is ten feet high and the second is nine feet. The living room is finished in quartered oak with a beamed ceiling and a brick-faced fireplace. The porch is enclosed by glass for winter use and is furnished with radiation. The dining room is finished in white enamel with mahogany doors.

The service portion is finished in gray enamel. The second floor has white enamel finish except the servants' rooms where gray stain has been used on cypress. The garage in the rear is also built of Natco Hollow Tile with stucco finish.

HOUSE AND GARAGE AT FLUSHING, LONG ISLAND, N. Y., Donn Barber, Architect

Page 66, 67

 $B_{
m \ Used}^{
m RICK}$ has been used in this house as an embellishment for the stucco finish. Used for the sills and arched heads of the windows and to outline the arches of the porch and porte-cochere, it forms a delightful accenting note of color. The chimneys are also interesting in the use of special shapes of brick.

The exterior walls of the house and also of the garage are of Natco Hollow Tile. The plan has been well arranged so that the doctor's suite in the rear of the house has a separate entrance, which makes that portion independent of the rest,

HOUSE AND GARAGE AT CHICAGO, ILL.,

Page 68, 69

George W. Maher, Architect

THIS building includes under one roof the residence proper, separate servants' Tills building includes under one tool as transaction of the owner as a dwelling is quarters, and the garage. The part for the use of the owner as a dwelling is on the first and second floors, the second story being reached by a spacious hall and stairway, which is one of the features of the interior. The servants' quarters are on the first floor and in the rear of the garage and yet are entirely separate from the main part of the house. The garage is reached from the main hall so that one may enter the house directly by automobile. The garage is so designed that it forms an integral part of the scheme of the whole building, not obtruding itself as a detached unit. This treatment of the three parts, each separate and distinct, yet closely related, has resulted in a very convenient arrangement, The walls of the house are constructed of Natco Hollow Tile, the outside of which is covered with a surface of cement finished to present a smooth white marble effect. The quoins at the corners are stone. The roof is covered with a dull flat vitrified green tile.

The interior of the house proper is finished in dull white enamel and mahogany.

HOUSE AND GARAGE AT OAK PARK, ILL.,

Page 70, 71

John S. Van Bergen, Architect

THE interesting design of this house follows a style which has been developed in and around Chicago in the last few years. The walls are of Nateo Hollow Tile finished on the outside with cement plaster of two colors, a dark buff color

being used in the recessed panels to accentuate the corners. The window sills, cornices and panel strips are rough cypress stained brown.

While the roof is flat and is only covered with a tar and gravel composition the house has been made very cool by allowing the second-story rooms to ventilate into the small attic space and then this space in turn ventilate into the open.

Because of the height of the building on the adjoining lot this house has been placed on a rather high terrace. The approach has been broken by two series of steps with flower boxes which gives something of a retiring appearance.

The stair and hall are well lighted from a large skylight directly overhead which also lights other parts of the first floor. At the end of the living room is a large fireplace with seats on either side, an effect which gives a welcoming appearance as one enters the house. The porch is reached through French windows.

The living room is finished in deep mahogany with soft gray walls. The dining room and breakfast room are in light gray birch with blue gray walls.

In the rear is a double garage which is quite in keeping with the house both in design and color.

HOUSE AND GARAGE AT EDGEWATER PARK, N. J.,

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J. Fletcher Street, Architect

THE design of this picturesque house was inspired by the precedents found in the Dutch Colonial work which makes it appropriate for its geographical location.

The stucco is on Natco Hollow Tile and has been given an interesting texture by having been rough cast. The open porch and the terrace are paved with brick while the steps leading to the driveway are also of brick.

The interior finish is Colonial in character, white paint being used on the trim with mahogany stained birch for the doors and stairs. The living room fireplace is brick while that in the library is of tile.

The garage is stucco finished and is of similar design to the house.

HOUSE AND GARAGE AT PALISADE, N. J.,

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Granville W. Dexter, Architect

In the design of this house red tiles have been carefully used to relieve the cream colored stucco. This finish of stucco is on walls of Natco Hollow Tile while the foundations are of local stone. The roof is covered with shingles stained moss green and the gutters are cypress.

The floors of the terrace and porch are red cement marked off in squares. The steps and borders of the walks are red brick.

On the inside a very pleasing effect has been obtained by using a sand finish on the plaster work, which harmonizes well with the oak trim used throughout the first floor. The woodwork on the second floor is birch; the kitchen and bathroom are tiled.

The house is equipped with gas and electricity and has low pressure steam heat.

The garage, unobtrusively located in the rear, is easily accessible from the house and follows the same general character of design.

HOUSE AND GARAGE AT CHICAGO, ILL.,

Perry & Thomas, Architects

In this case the garage has been attached to the house as a wing and forms a part of the design. It it so placed that it can be very easily reached from the rear entrance of the house and yet is entirely distinct from the living portion. The walls are of Natco Hollow Tile with stucco on the outside. Brick has been used for the chimney and also for the window sills. The roof is of green glazed tile. The finish of the interior is hardwood. The heating is by a vapor vacuum system.

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HOUSE AND GARAGE AT WASHINGTON, D. C.,

Macneil & Macneil, Architects

THIS building is an example of the adaptation of the Spanish Mission type of architecture to the design of a small house. The garage is interesting in its design, which is thoroughly in the same character.

The foundations and walls as well as the chimney are all of Natco Hollow Tile, twelve-inch tile being used for the foundations and eight-inch tile for the walls. The exterior is finished with a cream-colored stucco, while on the inside the plaster has been applied directly to the tile.

In the garage a four-inch Natco Hollow Tile has been used, one side of which is salt glazed. This gives a finely finished surface for the inside without any plastering or other coating, thereby effecting a distinct saving in construction.

HOUSE AND GARAGE AT PELHAM MANOR, N. Y.,

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Richard S. Shapter, Architect

THE exterior of this house is coment plaster finished to match Indiana limestone as much as possible both as to color and texture. The walls are twelve-inch Natco Hollow Tile. The roof is covered with Spanish Tile and its overhang is supported by large wooden brackets.

The rooms on the first floor are all finished in quartered oak, the living room being in the Flemish style, the halls in old English and the dining room in the Elizabethan period. The service portion of the main floor is finished in white, the walls being tiled up to a height of seven feet and above that enameled. The finish of the chambers is oak stained a light gray color and the walls are also tinted a silver gray. The basement contains a large laundry, cold storage room, boiler room and fuel room. The heat is by a vapor vacuum system.

The garage is built similarly to the house except that it is entirely fireproof. There is a large chamber and a bathroom on the upper floor.

HOUSE AND GARAGE AT WEEHAWKEN, N. J.,

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Mann & MacNeille, Architects

WHILE stucco is the more common treatment for the finish of Hollow Tile walls, brick may be used as a veneer at a saving in the expense of construction over solid brick and yet resulting in a wall of great durability. The air space in the tile effects a coolness in summer and a warmth in winter which is a distinct advantage over the ordinary brick construction.

In this house a wire cut buff brick has been used in connection with Nateo Hollow Tile. The woodwork on the exterior has been stained a soft brown. The roof is of green slate.

It is interesting to note the manner in which the garage has been planned so that it is under one roof with the entrance porch, not only tying in with the design of the building but forming a direct passage between the house and garage.

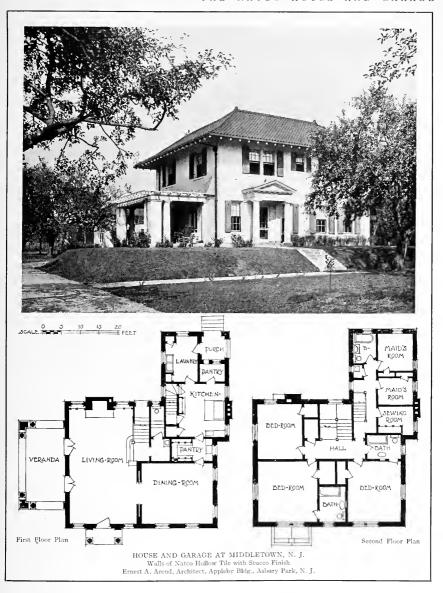
HOUSE AND GARAGE AT CHICAGO, ILL.,

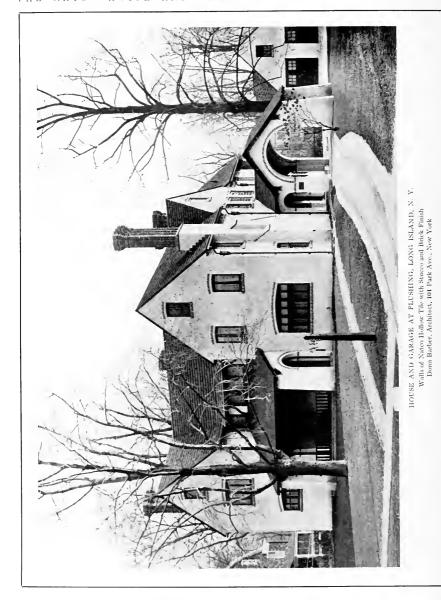
Page 78

Marshall & Fox, Architects

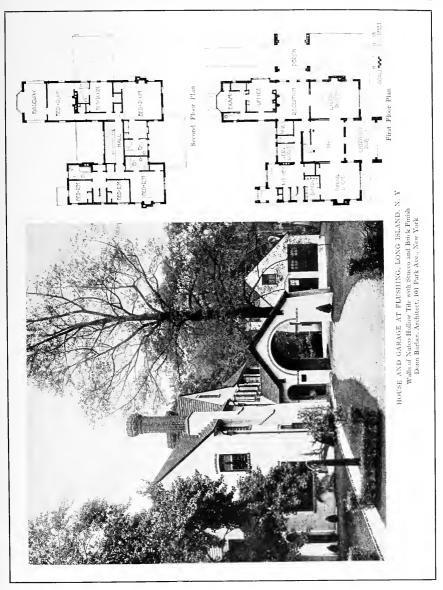
THE garage of this house has been so designed as to be an integral part of the whole design and directly accessible from the servants' hall. The large simple surfaces of stucco on Natco Hollow Tile are relieved by the color of the shutters, making a very restful and dignified design.

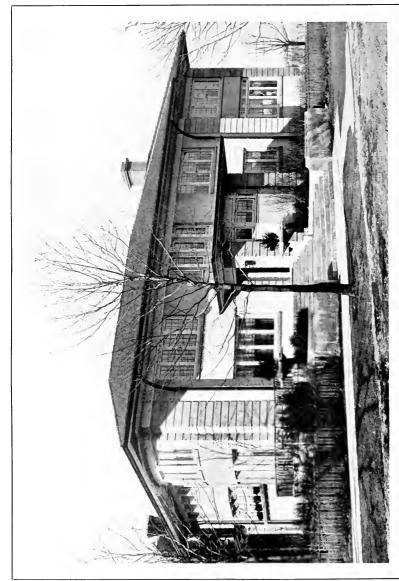
An interesting feature of the plan is the enclosed porch, which, with its arched opening, balances the entrance to the garage in the composition of the elevation. This porch is reached directly from the living room through two French doors and is quite as important in the household life as the living room itself.



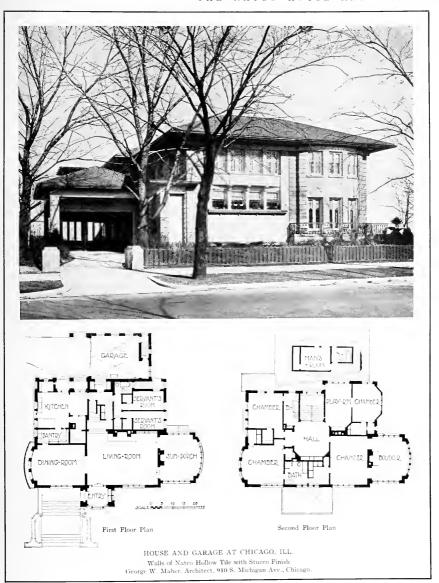


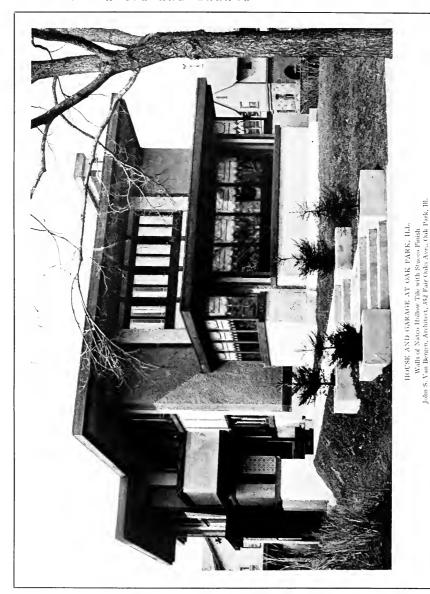
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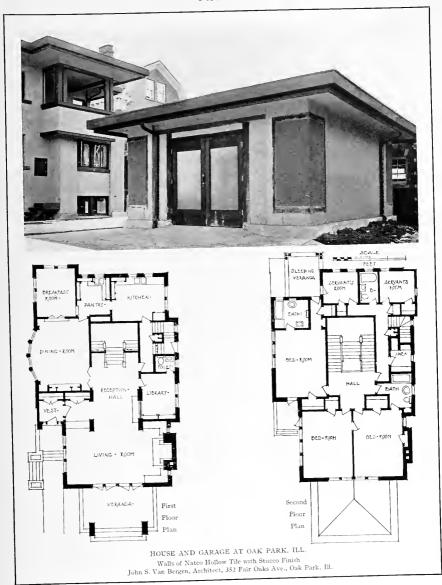


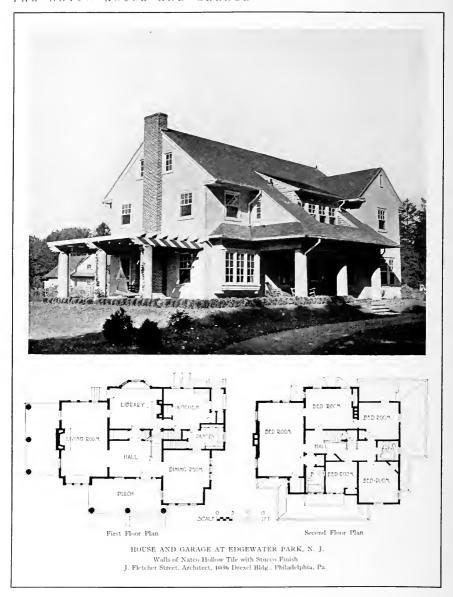
HOUSE AND GARAGE AT CHICAGO, ILL.
Walls of Natco Hollow Tile with Stuces Finish
George W. Maher, Architect, 910 S. Michigan Ave., Chicago

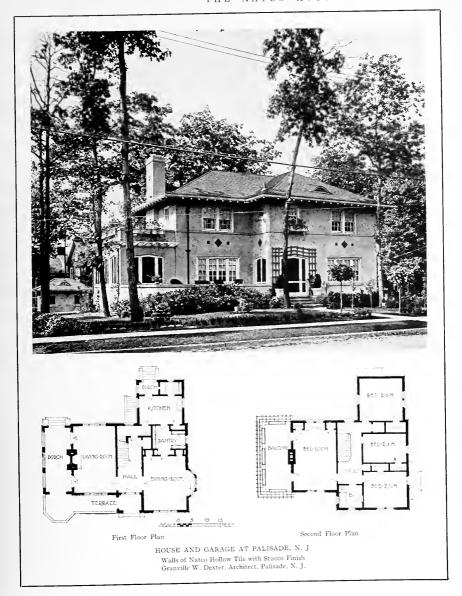


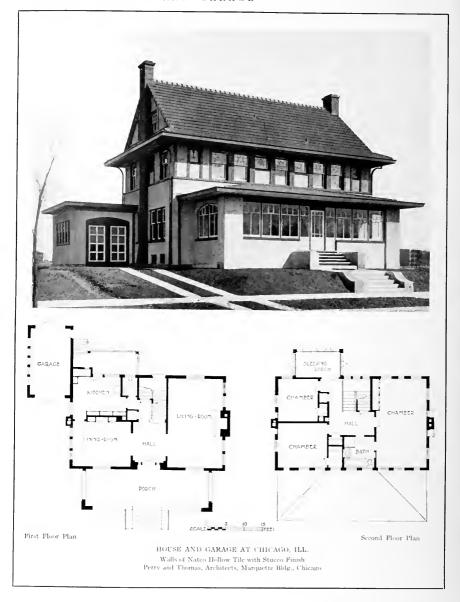


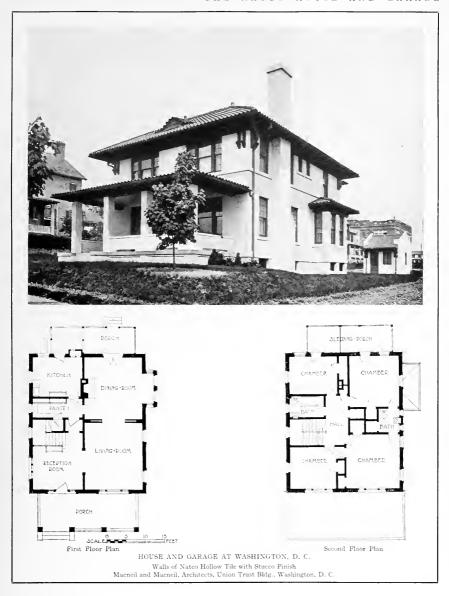
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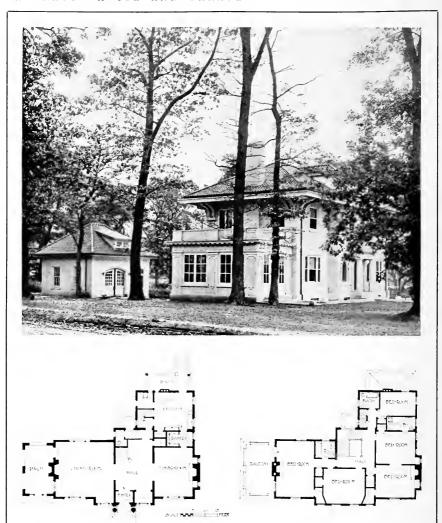










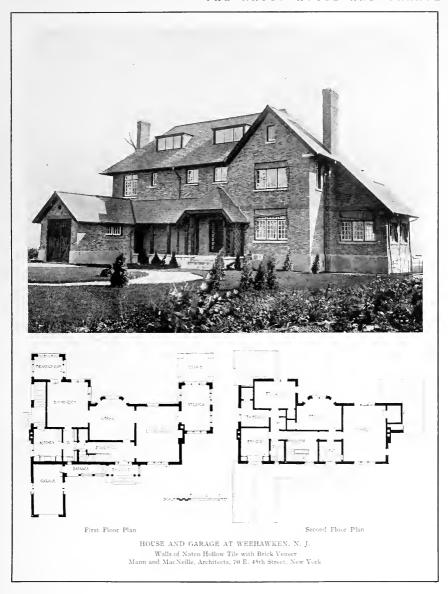


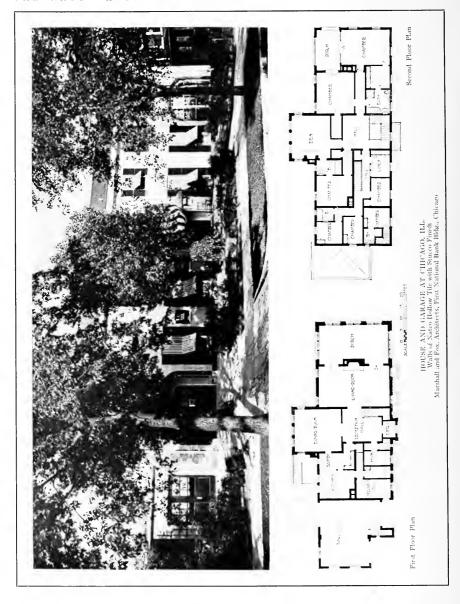
HOUSE AND GARAGE AT PELHAM MANOR, N. Y Walls of Natco Hollow Tile with Stucco Finish

Second Floor Plan

First Floor Plan

Walls of Natco Hollow Tile with Stucco Finish Richard Shapter, Architect, Post Office Bldg., Summit, N. J.





Natco Hollow Tile

THE wide use of Natco Hollow Tile for fireproof skyscraper construction has led leading architects to specify it for use in highest class residences and garages, and all buildings of this type. To meet the demand and the requirements of strictly bearing walls, a special type has been constructed of the same fireproof material, known as

NATCO XXX

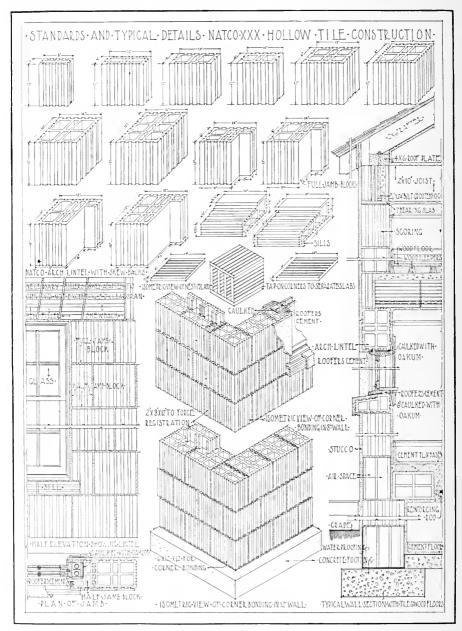
The peculiar adaptability of Natco XXX to residences and garages is due to the double cross web, causing every web and shell of every Natco XXX Tile as set in exterior and bearing walls to come into direct alignment, and under complete compression.

Natco XXX walls represent the utmost in structural solidity and strength. They cannot burn. Neither can dampness, climate, temperature or age cause the slightest deterioration. The material is unequalled for house and garage work.

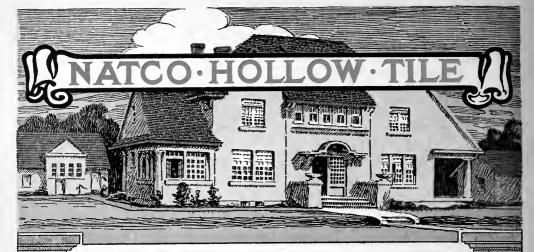
Permanence, absolute safety, and economy are features of Natco construction. The Natco house or garage needs no painting or repairing. It is warmer in winter and cooler in summer, because the Natco Hollow Tile insulate the structure with a blanket of dead air, and the material itself is practically non-conductive of heat or cold, and is absolutely moisture-proof. It affords no entrance to vermin. Finally—and this is of vital importance in house and garage construction—it is absolutely fireproof.

Various typical residences and garages are shown in this book, as indicative of the wonderful adaptability of Natco Hollow Tile for work of this character. It lends itself to any style of architectural treatment, available as it is in many varieties of correctly designed tile, and it will be found unequalled for use in floors, partitions, and roofs, as well as in bearing walls.

Naturally there are many inferior imitations of this highly successful product. The genuine may be distinguished by the trade mark "Natco" pressed into every Natco Hollow Tile.







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OU'RE at home in the library with its cheery atmosphere and surrounded by objects whose association makes them very dear to you. Your walls shut out the world and its worries, but do they shut out one fear that arises as you look around? Is the menace of a fire that might destroy your home always beyond the walls and out of your mind?

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it aids you in keeping out winter's cold and summer's heat.

Whenever and whatever you do build, remember Natco not only as the material to use but as a free service at your command—the service of the experienced Natco Engineers working with you, your Architect and Contractor from the first plans to the finished building. Natco service is one of the factors that make Natco construction so uniformly satisfactory and economical. It prevents mistakes and waste in building.

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